AMENDMENTS TO THE CLAIMS

Please amend the claims as follows.

1. (Currently Amended) A method for dynamic striping, comprising:

receiving a request to write a <u>file</u> ~~first data block~~ into a storage pool<u>, wherein the file comprises a first data block, a second data block, and a first indirect block</u>;

determining a physical disk location in the storage pool to store the first data block using a <u>first</u> dynamic striping policy, wherein the <u>first</u> dynamic striping policy comprises ~~at least~~ one selected from [[the]] <u>a</u> group consisting of a dynamic striping policy based on physical disk speed, a dynamic striping policy based on free space available on physical disks, a dynamic striping policy based on load on physical disks, and a round robin policy;

storing the first data block <u>using the first dynamic striping policy</u> at the physical disk location <u>in the storage pool</u>;

~~storing a first indirect block in the storage pool using the dynamic striping policy, wherein the first indirect block comprises the first data block location and the first data block checksum;~~

<u>storing the second data block in the storage pool using the</u> ~~updated~~ <u>first dynamic striping policy;</u>

~~changing the dynamic striping policy to obtain~~ an ~~updated~~ <u>selecting a second</u> dynamic striping policy<u>, wherein the second dynamic striping policy comprises one selected from the group consisting of the dynamic striping policy based on physical disk speed, the dynamic striping policy based on free space available on physical disks, the dynamic striping policy based on load on physical disks, and the round robin policy, and wherein the first dynamic striping policy is distinct from the second dynamic striping policy</u>; and

~~storing second data block using the updated dynamic striping policy;~~

> storing the first indirect block using the second dynamic striping policy, wherein the indirect block includes a first block pointer referencing the first data block and a second block pointer referencing the second data block.

2. (Previously Presented) The method of claim 1, further comprising:

    retrieving the first data block using the first indirect block.

3. (Original) The method of claim 1, further comprising:

    assembling the first indirect block, wherein assembling the first indirect block comprises populating a block pointer.

4. (Previously Presented) The method of claim 3, wherein populating the block pointer comprises:

    storing the first data block checksum in a checksum field within the block pointer; and

    storing the first data block location in the block pointer, wherein storing the data block location comprises storing a metaslab ID and offset.

5. (Original) The method of claim 4, further comprising:

    storing a birth value in a birth field within the block pointer.

6. (Original) The method of claim 3, wherein the first indirect block is assembled using a data management unit.

7. (Original) The method of claim 1, wherein the storage pool comprises at least one storage device.

8. (Original) The method of claim 1, wherein the storage pool is divided into a plurality of metaslabs.

9. (Original) The method of claim 8, wherein each of the plurality of metaslabs is associated with a metaslab ID.

10. (Previously Presented) The method of claim 9, wherein the first data block location comprises the metaslab ID and an offset.

3

11. (Previously Presented) The method of claim 1, wherein storing the first data block comprises using a storage pool allocator.

12. (Canceled)

13. (Currently Amended) A system for storing a first data block, comprising:

    a storage pool comprising <u>a file, wherein the file comprises</u>:

        a first data block <u>and a second data block</u>;

        a first indirect block; and

        a parent block referencing the first indirect block, wherein the first indirect block comprises a first block pointer that references the first data block <u>and a second block pointer that references the second data block,</u> [[and]] <u>wherein the first block pointer</u> comprises the first data block location and the first data block checksum <u>and the second block pointer comprises the second data block location and the second data block checksum</u>; and

        a storage pool allocator configured to<u>:</u>

            store the ~~parent block, the first indirect block, and~~ the first data block <u>and the second data block</u> in the storage pool using a <u>first</u> dynamic striping policy, <u>wherein the first dynamic striping policy comprises one selected from a group consisting of a dynamic striping policy based on physical disk speed, a dynamic striping policy based on free space available on physical disks, a dynamic striping policy based on load on physical disks, and a round robin policy,</u>

            ~~wherein the~~ <u>select a second</u> dynamic striping policy ~~is changed~~ <u>after storing the first and second data block</u> ~~to obtain an updated dynamic striping policy~~, <u>wherein the second dynamic striping policy comprises one selected from the group consisting of the dynamic striping policy based on physical disk speed, the dynamic striping policy based on free space available on physical disks, the dynamic striping policy based on load on physical disks, and the round robin policy, and wherein the first dynamic striping policy is distinct from the second dynamic striping policy,</u> and

wherein the storage pool allocator is further configured to store the first indirect block and the parent block a second data block in the storage pool using the updated second dynamic striping policy.

14. (Currently Amended) The system of claim 13, further comprising:

a second indirect block, comprising a first indirect block checksum and a first indirect block location,

wherein the storage pool allocator is further configured to store the second indirect block in the storage pool using the updated second dynamic striping policy.

15. (Previously Presented) The system of claim 13, further comprising:

a data management unit configured to assemble the first indirect block and request the storage pool allocator to store the first indirect block.

16. (Canceled)

17. (Original) The system of claim 13, wherein the storage pool comprises at least one storage device.

18. (Original) The system of claim 13, wherein the storage pool is divided into a plurality of metaslabs.

19. (Original) The system of claim 18, wherein each of the plurality of metaslabs is associated with a metaslab ID.

20. (Previously Presented) The system of claim 19, wherein the first data block location comprises the metaslab ID and an offset.

21. (Currently Amended) A computer system for dynamic striping, comprising:

a processor;

a memory;

a storage pool ~~device~~; and

software instructions stored in the memory for enabling the computer system under control of the processor, to:

receive a request to write a file ~~first data block~~ into [[a]] the storage pool, wherein the file comprises a first data block, a second data block, and a first indirect block;

determine a physical disk location in the storage pool to store the first data block using a first dynamic striping policy, wherein the dynamic striping policy comprises ~~at least~~ one selected from [[the]]a group consisting of a dynamic striping policy based on physical disk speed, a dynamic striping policy based on free space available on physical disks, a dynamic striping policy based on load on physical disks, and a round robin policy;

store the first data block using the first dynamic striping policy at the physical disk location in the storage pool;

~~storing a first indirect block in the storage pool using the dynamic striping policy, wherein the first indirect block comprises the first data block location and the first data block checksum;~~

store the second data block in the storage pool using the first dynamic striping policy;

~~change the dynamic striping policy to obtain an updated~~ select a second dynamic striping policy, wherein the second dynamic striping policy comprises one selected from the group consisting of the dynamic striping policy based on physical disk speed, the dynamic striping policy based on free space available on physical disks, the dynamic striping policy based on load on physical disks, and the round robin policy, and wherein the first dynamic striping policy is distinct from the second dynamic striping policy; and

~~storing second data block using the updated dynamic striping policy;~~

store the first indirect block using the second dynamic striping policy, wherein the indirect block includes a first block pointer referencing the first data block and a second block pointer referencing the second data block.

22. (Currently Amended) A network system having a plurality of nodes, comprising:

    a storage pool comprising a file, wherein the file comprises:

        a first data block and a second data block;

        a first indirect block; and

        a parent block referencing the first indirect block, wherein the first indirect block comprises a first block pointer that references the first data block and a second block pointer that references the second data block, [[and]] wherein the first block pointer comprises the first data block location and the first data block checksum and the second block pointer comprises the second data block location and the second data block checksum; and

        a storage pool allocator configured to:

            store the ~~parent block, the first indirect block, and~~ the first data block and the second data block in the storage pool using a first dynamic striping policy, wherein the first dynamic striping policy comprises one selected from a group consisting of a dynamic striping policy based on physical disk speed, a dynamic striping policy based on free space available on physical disks, a dynamic striping policy based on load on physical disks, and a round robin policy,

            store the first indirect block and the parent block using a second dynamic striping policy, wherein the second dynamic striping policy comprises one selected from the group consisting of the dynamic striping policy based on physical disk speed, the dynamic striping policy based on free space available on physical disks, the dynamic striping policy based on load on physical disks, and the round robin policy, and wherein the first dynamic striping policy is distinct from the second dynamic striping policy,

        wherein the storage pool is located on any one of the plurality of nodes,

        wherein the storage pool allocator is located on any one of the plurality of nodes[[,]]

        ~~wherein the dynamic striping policy is changed to obtain an updated dynamic~~

~~striping policy, and~~
~~wherein the storage pool allocator is further configured to store a second data block~~
~~in the storage pool using the updated dynamic striping policy.~~